

IMPROVING COMPETITIVENESS THROUGH PERFORMANCE-MEASUREMENT SYSTEMS

Parallels exist between the competitive pressures felt by U.S. manufacturers over the past 30 years and those experienced by healthcare providers today. Increasing market deregulation, changing government policies, and growing consumerism have altered the healthcare arena. Responding to similar pressures, manufacturers adopted a strategic orientation driven by customer needs and expectations that led them to achieve high performance levels and surpass their competition. The adoption of integrated performance-measurement systems was instrumental in these firms' success. An integrated performance-measurement model for healthcare organizations can help to blend the organization's strategy with the demands of the contemporary healthcare environment. Performance-measurement systems encourage healthcare organizations to focus on their mission and vision by aligning their strategic objectives and resource-allocation decisions with customer requirements.

BY LOUIS J. STEWART, PHD, CPA, AND ARCHIE LOCKAMY III, PHD, CFPIM

Many U.S. manufacturing firms use integrated performance-measurement systems to meet the complex management challenges posed by competitive, rapidly changing markets. Financial managers of healthcare organizations face similar challenges. A conceptual model of an integrated performance-measurement system used by manufacturing firms can be adapted to the particular needs of healthcare organizations.

Performance-measurement systems provide a means to align strategic objectives and market requirements, coordinate the effective use of organizational resources, and monitor progress toward predefined strategic objectives. For example, many U.S. manufacturing firms have adopted the improvement of product, process, and service quality as a crucial strategic objective for achieving world-class performance levels. However, sustainable world-class performance will not occur unless a firm's strategic objectives and actual market requirements are aligned. Additionally,

An integrated performance-measurement system can improve competitiveness by meshing the organization's long-term goals with its day-to-day clinical and administrative functions.

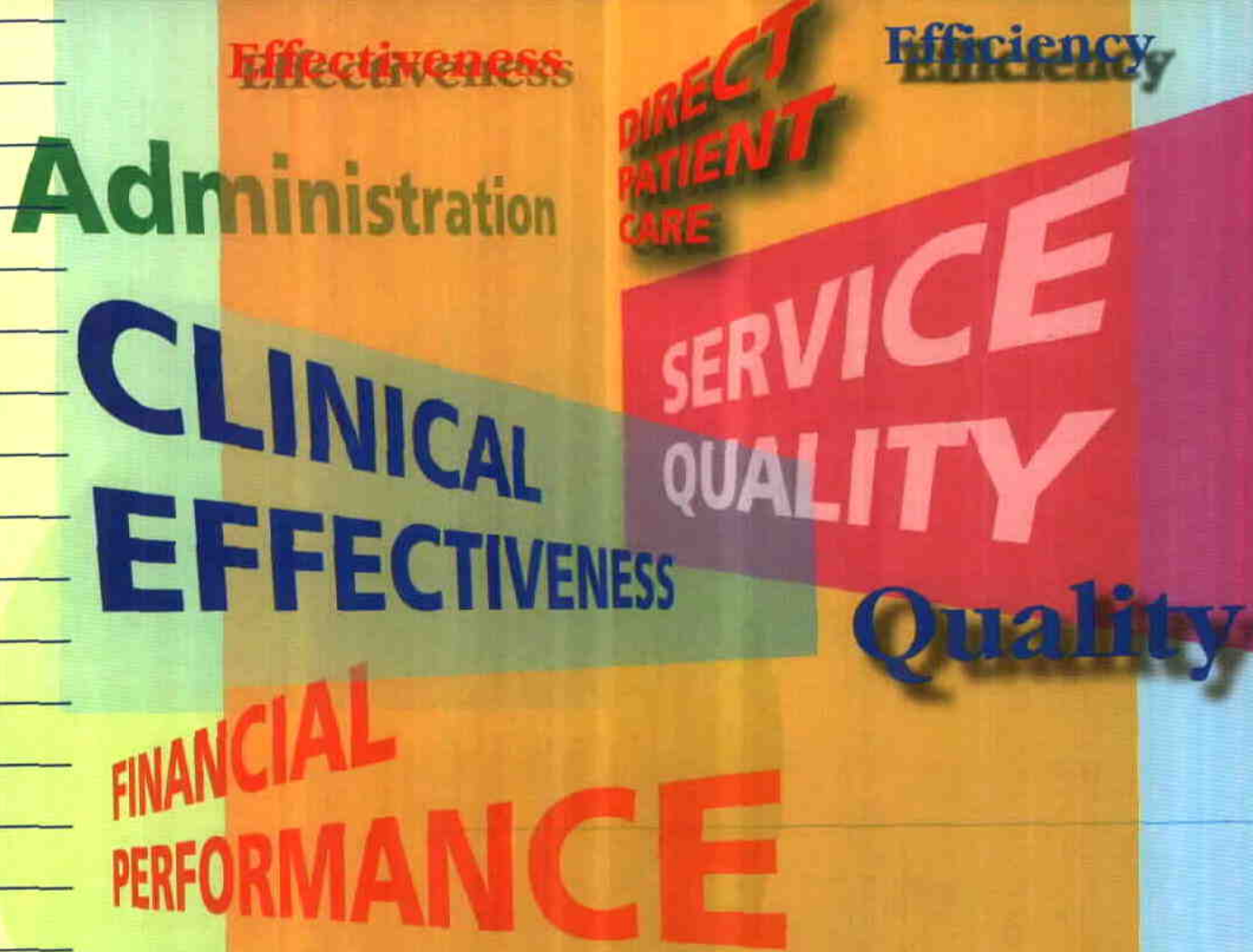
organizational coordination of market-driven initiatives is essential for ensuring the efficient use of resources.

Specific action programs supporting strategic objectives are required, as well as integrated performance-measurement systems that facilitate the organization's achievement of objectives.¹ Performance-measurement systems are composed of three elements: performance criteria, performance measures, and performance standards. Performance criteria are the relative elements used to evaluate performance. Performance measures are the actual results achieved in relation to the performance criteria over a specified period. Performance standards are the acceptable measures of performance for each criterion.

HEALTHCARE PERFORMANCE-MEASUREMENT SYSTEMS

Traditionally, formal performance-measurement systems in healthcare organizations have been administrative functions. As such, these systems have been focused

1. Lockamy III, Archie, and Cox, James F., *Reengineering Performance Measurement: How to Align Systems to Improve Processes, Products, and Profits*, Burr Ridge, Illinois: Irwin Professional Publishing/APICS, 1994.



exclusively on financial performance. William Cleverley presented a strategic-management model that links a hospital's strategic objectives to its operating activities through a concise set of financial-statement-based ratios.^b These financial ratios are used to summarize salient aspects of the organization's fiscal condition and operating results. Collectively, they measure the profitability, liquidity, solvency, and asset-employment efficiency of the healthcare organization. This perspective views the organization's current financial performance and condition as the realization of past management decisions and operating activities.

This formal, financially focused, performance-measurement system does not monitor the process or outcomes of the patient care delivery systems and generally defers to the individual physician's professional judgment regarding matters such as the selection of the appropriate medical technology and level of care. Oversight of the exercise of that judgment and the quality of the service-delivery process are to be monitored through physician peer review and the hospital-based quality-assurance

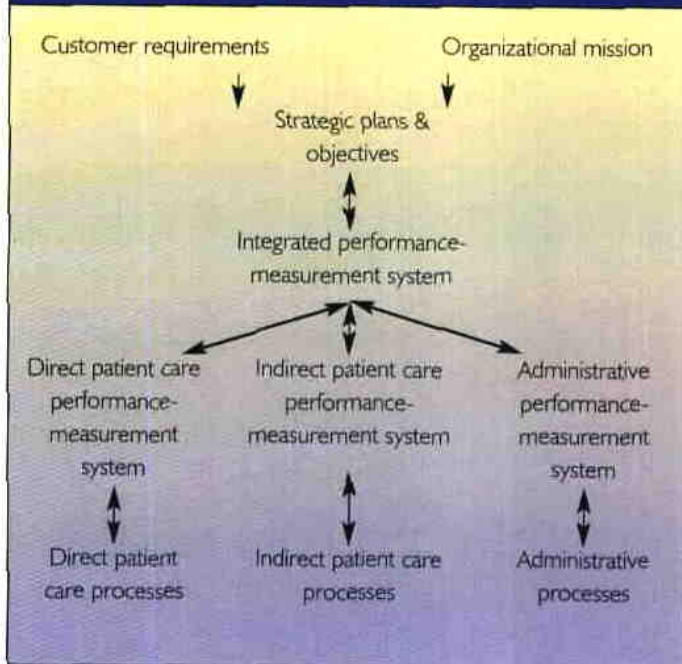
process. Thus, healthcare organizations typically have used separate evaluative processes for service quality, clinical effectiveness, and financial performance.

Kenton Walker has observed that there are three major deficiencies of a reliance on separate evaluative processes for service quality, clinical effectiveness, and financial performance in healthcare organizations, particularly hospitals and integrated delivery systems (IDSs).^c First, physicians' clinical decisions and resulting practice patterns are the primary cost drivers in hospitals and IDSs. Consequently, any effort to improve financial performance that does not consider clinical activities can offer only limited success. Second, efforts to control costs by improving productivity and reducing resource utilization are likely to meet strong resistance from healthcare professionals unless these efforts simultaneously deal with the issues of service quality and patient satisfaction. Third, independent evaluative processes are internally focused. Thus, each one reflects and communicates only the views of the healthcare provider's clinical or administrative personnel. The

b. Cleverley, William, "Understanding Your Hospital's True Financial Position and Changing It," *Health Care Management Review*, Spring 1995, pp. 62-73.

c. Walker, Kenton, "Efficiency and Effectiveness Reviews in Health Care Organizations," *Journal of Cost Management*, Spring 1996, pp. 80-86.

EXHIBIT 1: A CONCEPTUAL MODEL OF AN INTEGRATED PERFORMANCE-MEASUREMENT SYSTEM FOR HEALTHCARE ORGANIZATIONS



perceptions of quality, effectiveness, and efficiency held by payers, patients, and government agencies are not

A strategic orientation driven by actual customer needs and expectations, focused on the organization's mission, and supported by an integrated performance-measurement system, can greatly assist healthcare providers.

explicitly considered in the independent evaluative processes used in healthcare organizations.

Healthcare providers now are part of one of the most competitive sectors of the U.S. economy. Effective business strategies to operate successfully in this marketplace must reflect the increasing assertiveness of government agencies, private payers, and patients with regard to their expectations of the healthcare delivery system. These strategies should respond simultaneously to competitive

pressures from other providers, control costs for payers, and deliver the highest-quality healthcare services to patients. The use of an integrated performance-measurement system is essential to ensure that the provider's day-to-day clinical and administrative activities support its long-term strategic objectives.

Localized performance-measurement systems are designed to track performance and support short- and long-term decision-making processes associated with specific organizational functions or areas, such as departments. These localized systems should align with the organization's overall objectives, market requirements, and ability to deploy resources effectively. To ensure that departmental decisions are complementary across functional boundaries, linkages should be established between localized performance-measurement systems. Without such linkages, performance in one area may be optimized at the expense of performance in other areas of the organization.

An integrated performance-measurement system model exists for linking performance measurement of the three primary, aggregate, business functions (finance-, resource-, and customer-oriented functions) and their corresponding business processes for accomplishing a firm's strategy. In manufacturing, finance-oriented functions include accounting and other financially focused activities

designed to increase firm profitability. Design engineering, purchasing, production, warehousing, and transportation are resource-oriented functions whose role in business has been to reduce the costs associated with product development, manufacturing, and delivery. Customer-oriented functions include marketing, sales, and field service. These functions focus on ways to increase the revenue stream generated by the firm. Successful manufacturing firms use integrated performance-measure-

ment systems to ensure alignment between localized, functional decisions and the strategic objectives of the firm.^d

Exhibit 1 presents an adaptation of an integrated performance-measurement system model to the needs of a

d. Lockamy III, Archie, and Cox, James E., "Integrated Performance Measurement Systems: How to Manage the Horizontal Corporation," presented at American Production and Inventory Control Society 37th International Conference, Special Academic Program, October 31, 1994.

healthcare provider. This model views direct patient care, indirect patient care, and administration as the three primary, aggregate functions of a healthcare organization that need to be linked. Direct patient-care services include physician consultations, treatment, and nursing services. Indirect patient care encompasses various services related

to the diagnosis, treatment, and maintenance of patients that routinely involve minimal direct patient contact. These services include X-ray, MRI, and other diagnostic services; dietary services; and housekeeping. Administration includes those processes that support and maintain the organization's overall mission, fiscal integrity, human resources, and physical plant. These processes include strategic planning, operational budgeting, employee relations, accounting, and building maintenance.

Service delivery and processes necessary for supporting the healthcare provider's strategic objectives and meeting customer requirements are organized by key activities (eg, patient intake, billing, or clinical services) and managed using crossfunctional teams. Separate, local performance-measurement systems for each process are developed that are consistent with organizational strategies and other business processes. The local performance-measurement systems provide information on the effectiveness, efficiency, and quality of direct patient care, indirect patient care, and administrative processes. The direct-patient-care performance-measurement system shares patient information with the indirect-patient-care and administrative performance-measurement systems to determine the effect of fulfilling patient needs on the other primary functions of the healthcare organization. This information is used as the basis for determining continual improvement opportunities in existing service delivery processes and developing new processes to further enhance patient and payer satisfaction.

IMPLEMENTATION

The performance-measurement model should be adapted to the healthcare organization's particular situation. Specifically, the design and operations of the performance measurement system are contingent upon the structure of market competition and the organization's mission. For example, IDSs operating in markets that are characterized by high managed-care penetration often will track plan-membership retention rates within their performance-measurement systems.

The organization's administration should develop a coherent mission statement through close consultation with its primary stakeholders, including physicians, employees, patients, area employers, insurers, HMOs, and community representatives. The purpose of this mission statement is to provide a concise vision of the organization's long-term objectives and direction. These consultations also can provide management with a solid basis for

Suggested Readings about Performance-Measurement Systems

Chow, C.; Ganulin, D.; Teknika, O.; Haddad, K.; and Williamson, J., "The Balanced Scorecard: A Potent Tool for Energizing and Focusing Healthcare Organization Management," *Journal of Healthcare Management*, May/June 1998, pp. 263-280.

Cleverley, W., "Financial Dashboard Reporting for the Hospital Industry," *Journal of Health Care Finance*, Spring 2001, pp. 30-40.

Curtright, J.; Stolp-Smith, S.; and Edell, E., "Strategic Performance Management: Development of a Performance Measurement at the Mayo Clinic," *Journal of Healthcare Management*, January/February 2000, pp. 58-68.

Kaplan, R., and Norton, D., "The Balanced Scorecard—Measures that Drive Performance," *Harvard Business Review*, January/February 1992, pp. 71-79.

Kaplan, R., and Norton, D., "Transforming the Balanced Scorecard from Performance Measurement to Strategic Management: Part 1," *Accounting Horizons*, March 2001, pp. 87-104.

Smolko, J., and Greisler, D., "Understanding Medical Group Financial and Operational Performance: The Synergistic Effect of Linking Statistical Process Control and Profit and Loss," *Journal of Health Care Finance*, Spring 2001, pp. 64-75.

Stewart, L., and Bestor, W., "Applying a Balanced Scorecard to Health Care Organizations," *The Journal of Corporate Accounting & Finance*, March/April 2000, pp. 75-81.

Stewart, L., and Greisler, D., "Measuring Primary Care Practice Performance in an Integrated Delivery System—A Case Study of an Integrated Performance Measurement System in Action." 2001, unpublished working paper.

the compilation and assessment of customer requirements. Finally, management should formulate and implement a strategic plan containing objectives for the organization's future operating activities, resources, and facilities.

Development of an integrated performance-measurement system should be delegated to a six- to eight-member, multidisciplinary team. Information technology staff participation on this team is essential to ensure that the system's underlying data collection and infrastructure are operationally viable. Moreover, performance-measurement system output will lack credibility among the clinical staff without the participation of the provider organization's physicians and nurses. The finance department's involvement in the team also is essential because financial managers play an important role in data collection and analysis. Data such as patient-satisfaction survey scores, relative value unit (RVU) production, and unscheduled hospital readmissions, together with traditional account-

ing information such as departmental revenue and cost data, must be gathered as grist for the integrated performance-measurement system mill.

The implementation team should develop performance measures and standards for each major activity of the organization. For example, group practices and IDSS can better track their physicians' productivity by gathering data on total RVU production and periodically reporting an RVU-to-full-time-equivalent ratio. Hospitals can measure clinical quality by gathering data on hospital-acquired infections and periodically reporting a hospital-acquired infection rate. These measures and standards should focus on three aspects of performance—effectiveness, efficiency, and quality.

- **Effectiveness:** Is the organization doing the right things?
- **Efficiency:** Is the organization doing the right things with the minimum expenditure of resources?
- **Quality:** Is the organization exceeding the expectations of payers, patients, and internal customers?

CONCLUSION

Healthcare performance-measurement systems need to measure more than just administrative functions, because meeting consumer expectations is critical to success in today's healthcare marketplace. A strategic orientation driven by actual customer needs and expectations, focused on the organization's mission, and supported by an integrated performance-measurement system, can greatly assist healthcare providers in meeting the competitive challenges of the new millennium. ■

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